Work Orde		990		*105	990*							Page 1
Revision ID:	D2174-1			Accept	*N900	<b>040</b>	100	)*	Setup	Start Stop	ı vı .	S1*
	Web									этор	^N:	S2*
		Start Qty: 4.00	*4*		Cust Item I	D:						
Required Date:	9/16/13	Req'd Qty: 4.00	*4*		Customer:							
Reference:								,	_	C44		_
Approvals:	Process Plan:	MLJ	Date: \3-08-29	Tooling:	D:	ate:		]	Run	Start	*NI	R1*
	QC:		•	SPC (Y/N):	D:	ate:				Stop	*NI	R2*
Sequence ID/ Work Center II		Operation Description		Set Up/ Run Hours	Tool ID	Tool#	Plan Code	Accept Qty	Rej Qty		Reject Number	Insp. Stamp
Draw Nbr	Revisi	ion Nbr										
D2174	Rev E											
100	·····			0.00								
*100*	. 1	FLOW WATER JET						4	_0	)		<u>Ae</u>
Waterjet		Memo		0.00	•							13.10.05
FLOW CNC Waterje	et	1-Cut as pe Deburr if no	r Dwg D2174 Dwg Rev: ecessary	E Prog Rev:	2-							
110	(	QC2- Inspect parts off n	nachine FAI/FAIB	0.00				1				Æ.
*11 <b>0</b> *				0.00				4		)		13.10.05
QC Quality Control		Memo		0.00								
Quanty Control				DAS 27								
120	(	QC8- Inspect parts - sec	ond check	<b>9-89</b>				i .				
*120*				0.00 13 10-	7			4		,		
QC	mig	Memo		0.00	1							

Quality Control

DQA:		Date:		<del></del>
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NCR: Yes / No

# WORK ORDER NON-CONFORMANCE / UPDATE

											QA Closed:	Date	:
Work Orde	٠ř٠					DISPOSITION				AGAINST DE	PARTMENT	/PROCESS	
Part N	- lo					Rework Scrap Use-as-is Work Order Update		ا Thern	Skid-tube  Machining  noforming  Large Fab	Crosstube Small Fab Finishing Composite		Water Jet d. Eng. Coor. re/Packaging Supplier	Engineering Quality Other
Root					Descri	ption of work order update	In	itial	Ac	tion	Sign &		
Cause		Date	Step	Qty		or Non-conformance	Chie	f Eng	Desc	ription	Date	Verification	QC Inspector
Doc/Data													
Equip/Tooling				:									
Operator							1						·
Material										•			
Setup													
Other													
Process													
Supplier	Ш												
Training	Ш				·								
Unapproved										_			
						F	AULT	CATE	GORY		<del></del>		
Landii						General					1	<del></del>	_
	-	Bending			ļ	Bend	$\vdash$	Grain			Ovalized		Pressure/Forced
	-	Centre No	t Concer	ntric to	o/s	BOM/Route	-	lardwa			Over/Under	<del>-</del>	Temperature/Cure
	↤	Cracks				Broken/Damaged	$\vdash$	•	ion Incomplete		Part Incorred	<b>⊢</b>	Weld
	-	Crushed/0	Crimped			Burrs			ions Incomplete/	Unclear	Part Lost/Mi	ssing	Wrong Stock Pulled
	$\vdash$	Cuffs				Contamination	$\mathbf{H}$		enance		Part Moved		
		Heat Trea			<u> </u>	Countersink	$\vdash$	∕islabe			Positioned V	_	7
	-	Inspection		Tube	<u> </u>	Cut Too Short	$\vdash$	/lisread	1	<u>L</u>	Power Loss/	Surge	Other
	$\vdash$	Ripples in				Drill Holes	<b>—</b>	Offset					
	-	Torque W			n  _	Drawing	$\mathbf{H}$		Calibration				
	$\vdash$	Turning S	•		L	Finish	$\mathbf{H}$		Sequence				
	i i	Maya/Tw	ist in Tub	٠.	1	IFolio	1 1	Jutside	Dimensions				

Work Orde August-28-13 1		05990		*105	5990*							Page 2
Item ID: Revision ID: Item Name:	D2174-1 Web			Accept	*N900	<b>040</b>	100	)*	Setup	Start Stop	14.	S1* S2*
	9/16/13 9/16/13	Start Qty: 4.00 Req'd Qty: 4.00	*4* *4*		Cust Item I Customer:	D:						
Approvals:	Process Pl	an:	Date:	Tooling: SPC (Y/N):		ate: ate:			Run	Start Stop	*NI *NI	R1* R2*
Sequence ID/ Work Center II 130 *130* Small Fab Small Fab	)	Operation Description  Small Fab  Memo	k	Set Up/ Run Hours 0.00	Tool ID  DAS 27	Tool #	Plan Code	Accept Qty	Rej Qty		Reject Number	Insp. Stamp
140 *140 * QC Quality Control		QC5- Inspect part comple	eteness to step on W/O	0.00	9-89							
150 <b>*150*</b> HandFinish		Chemical Conversion Co	oat per QS1005 4.1	0.00				4	· .	MG	13-1	10-10

Hand Finishing

DQA:	 Date:	_

**WORK ORDER NON-CONFORMANCE / UPDATE** NCR: Yes / No QA Closed: Date: **AGAINST DEPARTMENT/PROCESS** DISPOSITION Work Order: Skid-tube Crosstube Water Jet Engineering Rework Machining **Small Fab** Prod. Eng. Coor. Quality Part No. Scrap Other Thermoforming Finishing Rec/Store/Packaging Use-as-is NCR No. Supplier Composite Work Order Update Large Fab Description of work order update Sign & Action Initial Root Chief Eng Date Verification QC Inspector Date Step Qty or Non-conformance Description Cause Doc/Data Equip/Tooling Operator Material Setup Other Process Supplier Training Unapproved **FAULT CATEGORY Landing Gear** General Bend Ovalized Pressure/Forced Grain Bending BOM/Route Centre Not Concentric to O/S Over/Under tolerance Temperature/Cure Hardware Broken/Damaged Weld Part Incorrect Cracks Inspection Incomplete Part Lost/Missing Wrong Stock Pulled Crushed/Crimped Burrs Instructions Incomplete/Unclear Cuffs Contamination Maintenance Part Moved Positioned Wrong Heat Treat Countersink Mislabeled Other Power Loss/Surge Inspection Strip in Tube Cut Too Short Misread Ripples in Bend Drill Holes Offset

Out of Calibration

Out of Sequence

**Outside Dimensions** 

Turning Sequence

Wave/Twist in Tube

Torque Waves in Extrusion

Drawing

Finish

Folio

Work Orde		5990		* /	10599	9N*							Page 3	
Revision ID:	D2174-1 Web			Accept	*	V900	<b>040</b>	100	)*	Setup	Start Stop	171.	S1* S2*	
Start Date: Required Date: Reference:	9/16/13 9/16/13	Start Qty: 4.00 Req'd Qty: 4.00	*4* *4*			Cust Item II Customer:	D:							
Approvals:	Process Pla	n:	Date:	Tooling: SPC (Y/I	N):		te: te:			Run	Start Stop		₹1* ₹2*	
Sequence ID/ Work Center II 160 *160* QC Quality Control	)	Operation Description QC3- Inspect Part Finish Memo		Set Up Run H 0.00		Tool ID	Tool #	Plan Code	Accept Qty U	Rej Qty		Reject Number	Insp. Stamp	
170 *170* Packaging Packaging		Identify as per dwg & Sto	ock Location: <u>GA</u>	0.00					_4×	, 	DAS 28 9-89	13-K	9-11	
180 *180* QC		QC21- Final Inspection -	Work Order Release	0.00					A	ac5	13-	10-11		

Quality Control

MUJ 13-10-11

										DQA:	Date	e:
NCR: Y	'es / I	No			WORK ORDER NON-C	CON	NFORM	MANCE / UPDATE		QA Closed:	Date	e:
Work Orde	er:	<u> </u>			DISPOSITION		·	AGAINS	r DE	PARTMENT/	PROCESS	
Part N	lo.				Rework Scrap Use-as-is		ſ	Skid-tube Crosstube Machining Small Fall noforming Finishing		4	Water Jet d. Eng. Coor. e/Packaging	Engineering Quality Other
NCR N	lo				Work Order Update			Large Fab Composite	_		Supplier	
Root				Descri	ption of work order update	1	nitial	Action		Sign &		
Cause	Da	te Step	Qty	,	or Non-conformance	Ch	ief Eng	Description		Date	Verification	QC Inspector
Doc/Data												
Equip/Tooling												
Operator												
Material												
Setup				1								:
Other												
Process			-									
Supplier												
Training			1									
Unapproved				<u> </u>								
					F/	AUL	T CATE	GORY				
Landi	ng Gear	**	•		General	_	Ī			,	_	
	Bend	ing ^			Bend	Ш	Grain		L	Ovalized	L	Pressure/Forced
;	Cent	e Not Conc	entric to	o/s	BOM/Route	Ш	Hardwa	re		Over/Under	tolerance	Temperature/Cure
	Cracl	(S		L	Broken/Damaged	-		on Incomplete		Part Incorred	<b>}-</b>	Weld
	Crus	ned/Crimpe	d		Burrs		Instruct	ions Incomplete/Unclear		Part Lost/Mi	ssing	Wrong Stock Pulled
	Cuffs				Contamination	Ш	Mainte	nance		Part Moved		
	Heat	Treat		ı	Countersink		Mislabe	led	i	Positioned W	/rong	

Misread

Out of Calibration

Out of Sequence

Outside Dimensions

Offset

Power Loss/Surge

Other

Turning Sequence

Wave/Twist in Tube

Ripples in Bend

Inspection Strip in Tube

Torque Waves in Extrusion

Cut Too Short

Drill Holes

Drawing Finish

Folio

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

August-28-13 11:52:01 AM

Work Order ID:

105990

Parent Item:

D2174-1

Parent Item Name:

Web

**Start Date:** 9/16/13

Required Date: 9/16/13

Start Qty: 4.00

Required Qty: 4.00

Comments:

IPP C04.06.09ReformatKJ/RF

IPP Rev:D As per Rev E 06-11-22 JLM

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
<b>M2024T3S.063</b> 2024-T3 .063 sheet		Purchased	No		.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	100	sf	411.6789	0.4722	1.988210	<b></b>	Au i	3,10,0
				<b>Location</b>		Loc Qty	<u>Lo</u>	c Code					
				MAT022		411.6789							
				1199	916	0.2							
				1211	197	21.34							
				1230	096	11.4		•					
				1236	554	11.64							
				1233	701	32.7039							
				1253	341	89.44							
				1256	536	244.955			125	636 -	<b>→</b>	20	

				DQA:	Date:
NCR.	Yes /	Nο	WORK ORDER NON-CONFORMANCE / UPDATE	<u> </u>	

												QA Closea:	Dat	ie.	
Work Orde	er:_					DISPOSITION					DEI	PARTMENT	•		]
Part N	-				·	Rework Scrap Use-as-is Work Order Update			Skid-tube Machining noforming Large Fab	Crosstube Small Fab Finishing Composite			Water Jet d. Eng. Coor. re/Packaging Supplier		Engineering Quality Other
Root	T				Descri	tion of work order update		nitial	Ac	ction		Sign &			
Cause		Date	Step	Qty		or Non-conformance		ief Eng	1	cription		Date	Verification	n	QC Inspector
Doc/Data						· · · · · · · · · · · · · · · · · · ·		<del></del>							
Equip/Tooling															
Operator															
Material															
Setup				\$										ļ	
Other														ļ	
Process															
Supplier	Ц													į	
Training															
Unapproved				<u> </u>											
					,		AUL	T CATE	GORY						
Landi					_	General		1		г		1	г		1
	—	Bending			<u> </u>	Bend	$\vdash$	Grain		<u> </u>		Ovalized		<u> </u>	Pressure/Forced
	$\boldsymbol{\vdash}$	Centre No	t Concer	ntric to	o/s  _	BOM/Route	-	Hardwa		1	_	Over/Under		<u> </u>	Temperature/Cure
	$\vdash$	Cracks			<u> </u>	Broken/Damaged	-		ion Incomplete			Part Incorre			Weld
	-	Crushed/0	Crimped		<u></u>	Burrs	$\overline{}$		ions Incomplete,	/Unclear		Part Lost/Mi	issing [		Wrong Stock Pulled
<u> </u>	$\overline{}$	Cuffs			<u> </u>	Contamination	$\vdash$	Mainte		-		Part Moved			
		Heat Trea		<b>T</b> I.	<u> </u>	Countersink	_	Mislabe		}	_	Positioned V	· ·		lo.,,,,,
	$\vdash$	Inspection	-	Tube	-	Cut Too Short	$\vdash$	Misrea	1	L		Power Loss/	Surge [	<u>'</u>	Other
	$\vdash$	Ripples in		·	_	Drill Holes	-	Offset	Calibantian					—	
		Torque W			"	Drawing	$\vdash$	1	Calibration						
1	$\vdash$	Turning So Wave/Tw			$\vdash$	Finish Folio	$\overline{}$	ł	Sequence Dimensions						·
1		wave/IW	ist in Tut	JE		ורטווט		Joutsiae	umensions						

DART AEROSPACE LTD	Work Order:	105990
Description: Web	Part Number:	D2174-1
Inspection Dwg: D2174 Rev: E		Page 1 of 1

## FIRST ARTICLE INSPECTION CHECKLIST

X First Article Prototype

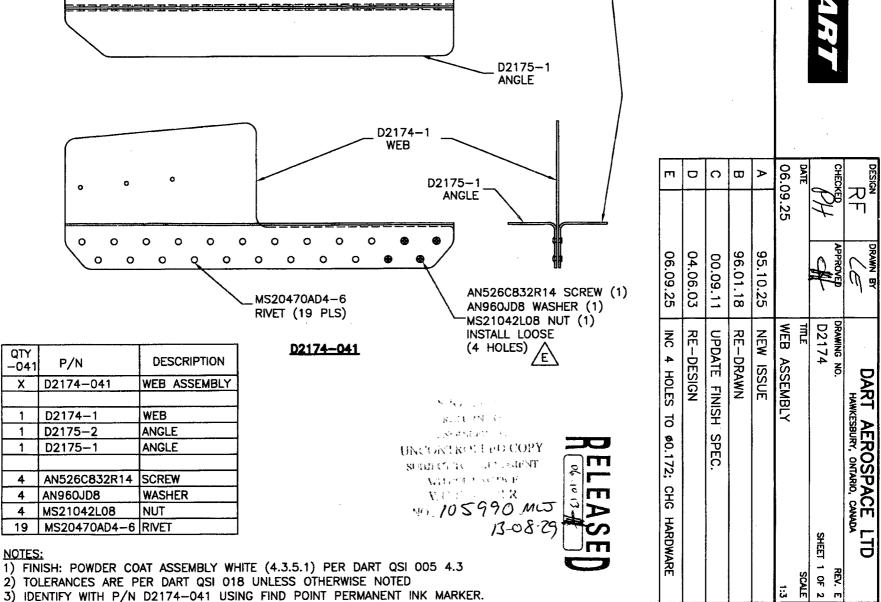
Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
6.250	+/-0.010	6.250	1		V	JKm-01
6.400	+/-0.010	6.400	-		V	
4.800	+/-0.010	4,800			V	
1.375	+/-0.010	1, 38	1		V	
1.050	+/-0.005	1.050			V	
Ø0.128	+0.005/-0.001	130			V	
12.650	+/-0.010	12.650	-		T	UKM-06
0.550	+/-0.010	,550	-		V	
0.900	+/-0.010	.900	)		V	
1.629	+/-0.010	1.629	-		V	
1.506	+/-0.005	1,506	-		٧	
11.550	+/-0.005	11.550			T	
50°	+/-0.5°	50°	-		RG	
0.063 thick	+/-0.010	.063	-		V	
Ø0.172	+0.005/-0.001	.175	-		V	

DAS

Measured by: Ae	Audited by:	27 9-89	Prototype Approval:	N/A
Date: 13.10.05	Date:	13 107	Date:	N/A

Rev	Date	Change	Revised by	Approved
Α	04.08.12	New Issue	KJ/JLM 14	21
В	07.04.02	Ø0.172 dimension added	KJ/JLM	GUI!





D2175-2 **ANGLE** 

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QTY

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NOTES:

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CHECKED	APPROVED	DRAWING N
7	*	D2174
DATE		37111
06.09.25		WEB

SHEET 2 OF 2

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-	6.250
R0.35 (TYP)	
4.283 0.500 — 2.692 1 0.900	3.012 (1.506 PITCH) (1.506 PIT
1.075	#0.128 (22 HOLES) 0.300 1.375

### D2174-1

### NOTES:

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PURPOSE OR COPIED

- 1) MATERIAL: 2024-T3 SHEET (QQ-A-200/4) 0.063 THICK (REF. DART SPEC. M2024T3S.063) 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
- 3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) BREAK ALL SHARP EDGES 0.005 TO 0.010 5) ALL DIMENSION ARE IN INCHES